

ABSTRACT

The invention concerns a semiconductor laser structure comprising a light guiding core (13) arranged between a lower confinement layer (15) and an upper confinement layer (14) including an etched stripe (16) charging the core to form an optical guide, the guide core including an amplifying section (1) delimited by two reflectors forming a resonant cavity enabling selection of a laser mode whereof the wavelength is tunable. The invention is characterized in that at least one reflector consists of a photonic crystal section (2) consisting of at least one pair of arrays of holes (19) arranged on either side of the guide stripe (16) each array of holes (19) of the photonic crystal section having holes forming a trapezium, the large base of the trapezium being further from the stripe than the small base.